EXECUTIVE SUMMARY

Salton Sea Authority Comments

on the

Salton Sea Ecosystem Restoration Program

Draft Programmatic Environmental Impact Report

I. Introduction

For millennia, half the full flow of the Colorado River sustained the immense and dynamic Lake Cahuilla ecosystem. That system offered one of the most significant wetlands habitats in North America, provided a critical link in the Pacific flyway, and served as the economic and spiritual heart of local Native American cultures. Over the last century, however, the Lake Cahuilla ecosystem has been reduced to a fraction of its former glory. Indeed, as a result of the countless diversions, dikes, dams, and developments of the Colorado River system in the last hundred years, what was once known as Lake Cahuilla no longer exists. What remains is the Salton Sea.

Unlike Lake Cahuilla, today's Salton Sea is not sustained by the natural flow of the Colorado River. Instead, it is now fed largely by agricultural return flows and other minimal sources. Despite this setback, the Salton Sea has been able to support an extensive biological and social environment, including the highest levels of avian diversity in the American Southwest, a compelling visual landscape and, at times, one of the most attractive recreational resources in all of California.

However, just as Lake Cahuilla devolved into the Salton Sea, the Salton Sea is threatened by its own form of extinction. As Colorado River waters are continually developed and transferred, and as agricultural return flows to the Salton Sea continue to decline, water quality in the Salton Sea continues to deteriorate, and environmental, social, and economic impacts related to the Salton Sea will emerge at an exponential rate. Particularly concerned are communities of the Coachella and Imperial Valleys, who are witnessing first-hand this unfortunate dilemma and continuing to suffer its deleterious effects.

For the Coachella and Imperial Valleys, the State of California, and the Southwestern United States and beyond, restoring the Salton Sea is not a question – it is an imperative. The critical issue, however, is how best to proceed. Recognizing the severity and complexity of this matter, the California Legislature mandated that the Department of Water Resources (DWR) undertake a "restoration study" to determine a preferred alternative for restoration of the Salton Sea ecosystem. Unfortunately, however, that study has been packaged in the form of a draft programmatic environmental impact report ("Draft PEIR"). This typical CEQA process unnecessarily constrains and fragments the restoration analysis. Consequently, the Draft PEIR fails to incorporate broad public policy goals, largely ignores socio-economic effects, and fails to provide a sufficient mechanism to accommodate the inevitable evolution of restoration concepts.

The attached Salton Sea Authority Comments provide important new information to address those deficiencies, as well as a technical critique of certain information contained in the Draft EIR. Included are:

- The Salton Sea Authority Comments on the PEIR , denominated as follows:

  G-1 to G-17: General Comments on the PEIR;

  PS-1 to PS-37: Page specific comments, including some comments that identify how the PEIR would be changed to reflect the updated version of the Salton Sea Authority Plan;

  AQ-1 to AQ-165: Comments specific to all air quality and salt crust issues; and

  C-1 to C-14 Comments that address environmental and logistical concerns that have been raised by the Pacific Institute, DFG, and others in regard to the feasibility and impacts of implementing the Authority's plan.

- A description of the Salton Sea Authority's augmented Restoration Plan, which includes new elements that address concerns raised regarding the March, 2006 version analyzed by the Draft PEIR (Attachment 9a);

- Studies that substantiate and augment the technical feasibility of the Authority's Plan (Attachments 1, 2, 6, 7, 8, 9b, 9c, 10 and 11);

- Studies that demonstrate the natural and economic benefits, and potential local funding sources, that would be generated by a restored Sea (Attachments 2, 3 and 4).

II. The SSA Restoration Plan

The Authority's Restoration Plan has been in development for more than 10 years and embraces more than 40 years of scientific and engineering studies specifically concerning the Salton Sea. It has included widespread stakeholder involvement, enjoys unified support by residents and local governments, and is structured to address the broad and complex range of environmental, social and economic issues at stake in this matter. SSA's Restoration Plan provides a reasoned blueprint for the future of the Salton Sea.

The Draft PEIR considered SSA's Restoration Plan as it existed in March 2006. At that time, the primary features of the Plan included a mid-sea barrier to maintain a recreational saltwater lake in the northern portion, a recreational estuary lalke in the southern portion, a recirculation canal, a fresh water reservoir, a shallow water saline habitat complex, and two

water quality treatment plants.

Since March 2006, SSA has received significant input from the general public, Salton Sea Coalition, DWR, DFG, and the Salton Sea Technical Advisory Committee. In turn, SSA quickly incorporated that information into a revised Restoration Plan. While the core elements of its former Plan remain intact, SSA's augmented Plan contains several additional components that are critical to a successful restoration effort for the Salton Sea. SSA submitted this new information to DWR in November 2006. Key new provisions provided by SSA's augmented Plan include:

- Modified water diversion provisions to provide priority for, and lower salinity in, the saline habitat complex;
- Increased acreage of the saline habitat complex;
- Additional air quality mitigation measures based on the air quality mitigation "toolbox" developed by the Restoration Study, including salt tolerant vegetation, water for mitigation, etc.;
- A conveyor system to move rock from a quarry at Coolidge Mountain to the Salton Sea, which would essentially eliminate fugitive dust and emissions from truck traffic;
- Additional water quality contingencies to be implemented if the treatment plants provide infeasible; and
- Additional flexibility to move the mid-sea barrier, if necessary, to meet the Draft PEIR's inflow requirements.

Of all the alternatives presented in the Draft PEIR, the SSA's augmented Plan maintains the greatest portion of the Salton Sea and preserves more fish and wildlife habitat than any other proposal. Only the SSA's Plan will improve water quality to a level sufficient to reduce odors to surrounding communities and other sensitive receptors. It also provides the most comprehensive approach to fugitive dust mitigation, thus reducing environmental impacts and protecting public health. SSA's Plan maintains extensive portions of the existing shoreline with water that provides the greatest recreational opportunities. Equally important, the Plan is supported by the Tribe of Torres Martinez Desert Cahuilla Indians, the historic beneficiary of Lake Cahuilla. Indeed, the SSA Plan provides the best alternative with respect to preserving cultural, spiritual, economic and environmental values that are essential to the Tribe. These and countless other elements make SSA's Restoration Plan the superior basis upon which to develop and adopt the preferred alternative under the CEQA process.

III. Comments on the Draft PEIR

A. Air Quality Impacts

A recent study by the Pacific Institute concluded that unless effective action is taken soon, air quality impacts from the deteriorating Salton Sea could render large portions of the Imperial and Coachella Valleys uninhabitable. Accordingly, CEQA requires the alternatives analysis of the Draft PEIR to provide a detailed analysis of potential air quality impacts and strategies for mitigating those impacts.

Unfortunately, the Draft PEIR significantly misconstrues the air quality impacts discussed in SSA's Restoration Plan. In Chapter 10, the Draft PEIR indicates that SSA's March 2006 Plan could produce substantially greater air quality impacts than other alternatives. This conclusion was reached, however, based on two erroneous assumptions. First, the Draft PEIR fails to sufficiently analyze air quality impacts associated with significant truck travel over dirt roads to transport large quantities of rock needed for the mid-sea barrier and other dike systems. That truck travel would result in extensive dust and exhaust emissions. Second, the Draft PEIR improperly concludes, without sufficient analysis, that SSA's proposal to use salt crust to mitigate fugitive dust from exposed playa would be ineffective. SSA's augmented Restoration Plan provides the superior environmental alternative with regard to air quality impacts.

(1) Construction Activities. Air quality impacts related to truck travel are addressed and mitigated by SSA's revised Plan by proposing the installation of a two-mile long conveyor system to move rock from a quarry at Coolidge Mountain to the Salton Sea. Those materials would then be transported by barge to appropriate construction locations. The use of the conveyor system would essentially eliminate fugitive dust and diesel exhaust generated by using trucks to transport rock for the mid-sea barrier and other dike systems.

(2) Exposed Playa. The Draft PEIR greatly over-estimates the fugitive dust impacts generated by exposed playas under SSA's Plan. First, it is important to note that because SSA's proposal maintains more water surface area than any other proposal, SSA's proposal would expose less potentially emissive playas than other alternatives. The Draft PEIR fails to sufficiently analyze that relationship.

Second, the Draft PEIR assumes, again without sufficient analysis, that salt deposits left by receding waters would be emissive. This conclusion is based on an erroneous comparison with Owens Lake, where the salt composition and deposition process are much different and extremely emissive as compared to the Salton Sea. The more appropriate comparison is with the Bonneville Salt Flats, where the salt composition and deposition process are more like that of the Salton Sea. Notably, while the Bonneville Salt Flats have proven to be stable over time and non-emissive, that analysis is not provided in the Draft PEIR.

Third, the Draft PEIR fails to credit the portion of SSA's Restoration Plan that mitigates emissions from playas above -255 feet by controlled evaporation and formation of a protective salt crust. Instead, the Draft PEIR simply concludes that the entire Phase IV exposed playas would be unmitigated.

Fourth, the Draft PEIR ignores the demonstrated fact that a stable, non-emissive salt crust can be formed by controlled evaporation of Salton Sea water. Pilot demonstration projects at the Salton Sea, along with large scale operations and long-term experience at the Bonneville Salt Flats, show that controlled evaporation provides an effective mitigation measure.

Finally, SSA's revised Restoration Plan includes an additional 25,000 acre-feet of reserved water for dust control of the 50,000 acres of exposed playa expected to surround the brine pool and provides for the use of additional air quality mitigation from the "toolbox" as needed to address air quality related impacts . Consequently, SSA's augmented Plan offers a far more effective long-term air quality mitigation strategy than the other alternatives.

(B) Water Quality

Maintaining high water quality levels is a key objective and significant component of SSA's Restoration Plan. In fact, SSA's Plan is the only alternative that proposes a comprehensive water treatment program, including wetlands and water treatment facilities, to restore and maintain high water quality levels for both deep marine sea areas and surrounding shallow habitat. As of March 2006, even though SSA's Plan was more protective to water quality than any other proposal, it was limited to water treatment plants capable of removing phosphorous from the Alamo River and the recreational salt water lake. Since that time, SSA has been conducting additional studies on ozonation infiltration and hydrogen sulfide to improve the effectiveness of its proposed water treatment plants.

The SSA's augmented Plan also includes a contingency measure that would allow the north lake level to be lowered by up to 10 feet. Scientific data suggests this is the point at which natural effects may eliminate hydrogen sulfide buildup and catastrophic releases that cause fish kills and significant odor problems. Under this two-tiered approach, SSA is confident the north lake will provide great value as a wildlife habitat and mitigation resource.

Additionally, the Authority has included as part of its water quality treatment plan, the construction of wetlands along the New and Alamo Rivers for reducing coliforms, suspended solids, total phosphorous and total nitrogen entering the Salton Sea system. It is estimated that after flows from Mexico are eliminated from the New River, and after full buildout of all 35 proposed wetlands along the New and Alamo rivers, a 35% reduction of phosphorus entering the Salton Sea will be affected.

The Authority is also investigating a controlled eutrophication approach to remove phosphorous from the incoming rivers. The Salton Sea Authority has investigated this in the past with research performed by Ken Sea Tech (Salton Sea Biological Remediation Program, 2003). The Authority is now seeking funds to implement a pilot demonstration project to assess the performance of a controlled eutrophication project using New or Alamo river water, solely or in combination with drain water. Information included in the PEIR strongly supports efforts to reduce internal and external phosphorus loadings in the Sea, in order to improve water quality in any preferred alternative. To date, the controlled eutrophication project offers some promise of meeting such needs, at least at a limited scale. Scaling up the project and using Imperial Valley drainage water will provide important information on the performance of this project.

Without the efforts of the Authority, Imperial County farmers have reduced phosphorus loading of the New and Alamo Rivers by 50%, simply by changing their field flooding practices. The Salton Sea Authority believes that continued source control, in combination with the wetlands projects and a potential controlled eutrophication system, water quality in the Salton Sea can be improved substantially without the use of traditional water treatment facilities.

(C) Wildlife

Maintaining historic levels of fish, bird, and other wildlife has always been a primary objective of SSA's Restoration Plan. In this regard, SSA's Plan is the only alternative that provides for large areas of deep marine habitat needed to support the significant population and variety of marine sportfish and fish-eating birds.

The Draft PEIR indicates that SSA's Plan would provide less saline habitat complex and, thus, support lower populations of shoreline birds than other alternatives. This analysis is incorrect. The Draft PEIR fails to credit the 1,250-acre estuarine habitat complex at the mouth of the Whitewater River, even though that complex is identified in SSA's March 2006 Restoration Plan.

SSA's augmented Plan increases the size of this estuarine habitat complex by 550 acres to a total of 1,800 acres. In addition, the 12,000-acre saline habitat complex at the south end of Salton Sea has been expanded by 4,000 acres for a total of 16,000 acres. A no-wake zone could be included along sensitive areas of shoreline habitat on the recreational lake. Finally, if the controlled eutrophication process is added to the project design, an additional 11,000 acres of new bird habitat may become available.

(D) Inflow Assumptions

The Draft PEIR analyzes alternatives based on mean projected inflows of 717,000 acre-feet per year. SSA believes that analysis is seriously flawed and is concerned of the potential, whether intended or not, to facilitate additional water transfers at the expense of the Sea. It should be noted that the QSA, CEQA and permit documents are predicated on post-QSA inflows of 978,000 acre feet per year. The Bureau of Reclamation's latest projections (11/15/04) projects post-QSA average inflows of 900,000 acre feet per year.

The Authority believes that the PEIR's climate-related precipitation and evaporation analysis is particularly flawed and results in much lower inflows than if the analysis were to be corrected. The Authority also highlights how the PEIR's inflow assumptions do not take into account runoff, effluent and groundwater flow that would result from future residential commercial and industrial development around the Sea.

Nevertheless, the Authority's augmented plan provides flexibility to function even under the state's very conservative inflow assumptions. The augmented plan provides a contingency to move the mid-sea barrier northward, reducing the size of the recreational lake, to accommodate reduced assumptions.

(E) Social and Economic Effects

Unfortunately, the Draft PEIR provides only a cursory analysis of economic and social effects of the Salton Sea restoration process, even though such effects are among the most significant concerns of the local community. The facts are straightforward on this issue. The Salton Sea lies in the heart of the rapidly growing Coachella and Imperial Valleys. Thus, it is beyond dispute that the success or failure of any restorative effort will have lasting impacts on the social and economic well-being of millions.

(1) Environmental Justice.

As an informative, proactive and protective document under CEQA, the Draft PEIR should provide additional analysis regarding Environmental Justice (EJ) issues. Indeed, EJ issues will be addressed in any later programmatic or project-specific EIS/EIR under the National Environmental Protection Act (NEPA) since those issues are part of NEPA's decision-making process in choosing a preferred alternative. Given the likely importance of EJ issues later in the process, SSA believes the decision not to consider them now as part of the Draft PEIR may result in the selection of an alternative that disproportionately affects children and underprivileged communities.

Many communities surrounding the Salton Sea include significant percentages of low-income or minority populations who are specifically identified for analysis regarding disproportionate environmental impacts under EO 12898, Environmental Justice. Additional EJ analysis in the Draft PEIR should identify census tracts or broader geographic areas with substantial proportions of low-income or minority residents and determine whether any of the direct or indirect impacts of the restoration project might affect those communities to a greater extent than they would affect other communities.

Direct or indirect impacts that could affect EJ-sensitive communities in the project area could include, without limitation:

- Access to recreational resources, particularly shoreline activities, as the shoreline of the Salton Sea changes in various ways under the proposed alternatives;

- Indirect economic impacts from loss of business/employment associated with changes in recreational uses along the Salton Sea;

- Indirect economic impacts associated with changes in agricultural practices in the Imperial Valley due to changes in water distribution under project implementation, thus leading to job losses or other economic changes;

- Indirect environmental impacts associated with air quality impacts, including increased odors; and

- Loss of tax-based funding for community services as a result of lost business in the recreational, agricultural, or other sectors along the Salton Sea, and losses in property values in the Salton Sea basin. An analysis of how each alternative would affect property values in the Salton Sea basin should be conducted and considered as part of the PEIR process.

(2) Economic Impacts.

SSA's Restoration Plan is designed to ensure that a restored Salton Sea meets the wildlife, water and air quality objectives of the state, but also provides a positive impact to local and regional economies. The Draft PEIR provides no comparative economic data or analysis regarding the proposed alternatives. Rather than the limited qualitative discussion presented in the Draft PEIR, SSA believes a full economic analysis is appropriate in this instance which should include, without limitation:

- Values of recreational use from fees, gas, food, lodging, and goods, including hunting, fishing, boating, camping, bird watching, hiking, and OHV uses, in addition to estimated values of recreation along the flyway from migratory species;
- Income generated from associated retail sales;
- Income generated from project construction (jobs and supplies);
- Income generated from project operations (jobs and supplies);
- Income generated from increased home construction (jobs and supplies);
- Income generated from service jobs and businesses associated with increased residential populations; and
- Income from increased taxes due to additional homes and businesses.

Restored natural values are also a significant factor. According to a recent study commissioned by SSA, a restored Salton Sea could generate $1 - $5 billion annually in non-market conservation benefits. Furthermore, the SSA Restoration Plan is the only alternative that provides for a full expansion of the geothermal energy field at the southern end of the Salton Sea, which would provide a valuable source of green energy in today's energy-thirsty market.

(F) Funding

SSA's Restoration Plan is the only alternative that provides any likelihood of receiving significant local funding. This is made possible because SSA's Plan is the only alternative supported by local agencies and the only alternative capable of generating large-scale

development that makes local funding feasible.

It is estimated that improved conditions around the Salton Sea resulting from the implementation of the SSA Restoration Plan would result in the construction of 200,000 homes. That construction could generate new tax revenues specifically to address restoration efforts in amounts estimated to be $1.4 billion annually, which could to be used for operation and maintenance and/or to support $10 billion in revenue bonds for project financing.

A previous study by the Rose Institute estimated that additional revenue streams could generate $361 million in net present value.

(G) Aesthetic Impact

Among the most impressive features of the Salton Sea are its vistas. The massive and serene expanse of water against the desert and mountain backdrop provides dramatic visual values. Once again, SSA's Restoration Plan is the environmentally superior alternative in this regard. It maintains the largest portion of these aesthetic resources by retaining large expanses of water in proximity to inhabited communities. Under other alternatives, this important aspect of the Salton Sea would be forever lost.

IV. Conclusion

Waters diverted from the Colorado River sustain communities throughout the Southwest. The Salton Sea is threatened with collapse. A strong, comprehensive, and flexible plan is needed to forestall that collapse, and its deleterious consequences for the surrounding natural and human communities.

SSA's augmented Restoration Plan provides a successful, sustainable, and environmentally superior roadmap to restore the Salton Sea. It has been developed over the last 10 years with extensive stakeholder input and scientific support. It enjoys the united support of community residents, the private sector, and local governments.

For these and other reasons set forth in SSA's detailed comments to the Draft PEIR, the Authority respectfully requests the Draft PEIR be amended in to incorporate the new and corrected information included in these comments regarding augmentations to the Authority's Restoration Plan, efficacy of the Authority's proposed mitigation, and the full range of benefits of a restored Salton Sea.